

- C1
- P. 8 spec
- New matter
- a) blending said contaminated sediments or soils with a calcium oxide source, alumina, ferric oxides and fluxing agent to form a mixture;
 - b) heating the mixture above the melting temperature of said mixture to produce a completely molten homogeneous reaction product;
 - c) bubbling oxygen through the molten reaction product for destruction of said organic contaminants;
 - d) quenching the reaction product in the presence of moist air, steam or water to form a reactive amorphous material having a silicate network, and thereby incorporating inorganic contaminants and heavy metals within the silicate network;
 - e) pulverizing the reactive amorphous material to form a reactive cementitious powder having a molar acidity of about 1.0 to about 2.5;
 - f) blending the cementitious powder with cement to yield a stable blended [non-leaching] cement which leaches less than 0.01 mg/L of Pb, Ca, and Cd, and less than 0.1 mg/L of Zn.

C2

Sub Dr

3. (twice amended) A generally homogeneous non-leaching reactive cementitious melt product which is amorphous and [has the composition of] comprising: calcium oxide (CaO), about 20 to 40 wt%; silica (SiO₂), about 45 to 65 wt%; alumina (Al₂O₃), about 5 to 20

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C2 wt%; ferric oxide (Fe₂O₃), about 2 to 10 wt%; and fluxing agent [about 0 to 5 wt%], said melt product leaching less than 0.01 mg/L of Pb, Ca, and Cd and less than 0.1 mg/L of Zn.

Sub 203 9. (once amended) A blended cement comprising a mixture of portland cement and a reactive melt product, said reactive melt product [including] is a generally homogeneous [mix of] amorphous non-leaching cementitious melt product comprising CaO, SiO₂, Al₂O₃, Fe₂O₃ and CaF₂, the weight ratio of reactive melt product to portland cement being from about 10 parts of reactive melt product to about 90 parts of portland cement up to about 70 parts of reactive melt product to about 30 parts of portland cement, said melt product leaching less than 0.01 mg/L of Pb, Ca, and Cd and less than 0.1 mg/L of Zn.

REMARKS

In the above identified Office Action the Examiner has rejected claims 1-11 as being unpatentable over Rostoker et al., Mason et al., Pichat, Meegoda et al., and Detering et al. in view of Lewis. Applicant's attorney has conducted an interview with the Examiner in which the Examiner indicated that amendment to the claims limiting the claims to levels lower than the prior art would be considered, when accompanied by declaration evidence stating such differences in the leaching levels. Applicant encloses the Declaration of Dr. Amir Rehmat, co-inventor herein, stating, *inter alia*, that a leachate level analysis performed under the standard procedure EPA 1311, showed that the level of metal leachate of the product of the subject